

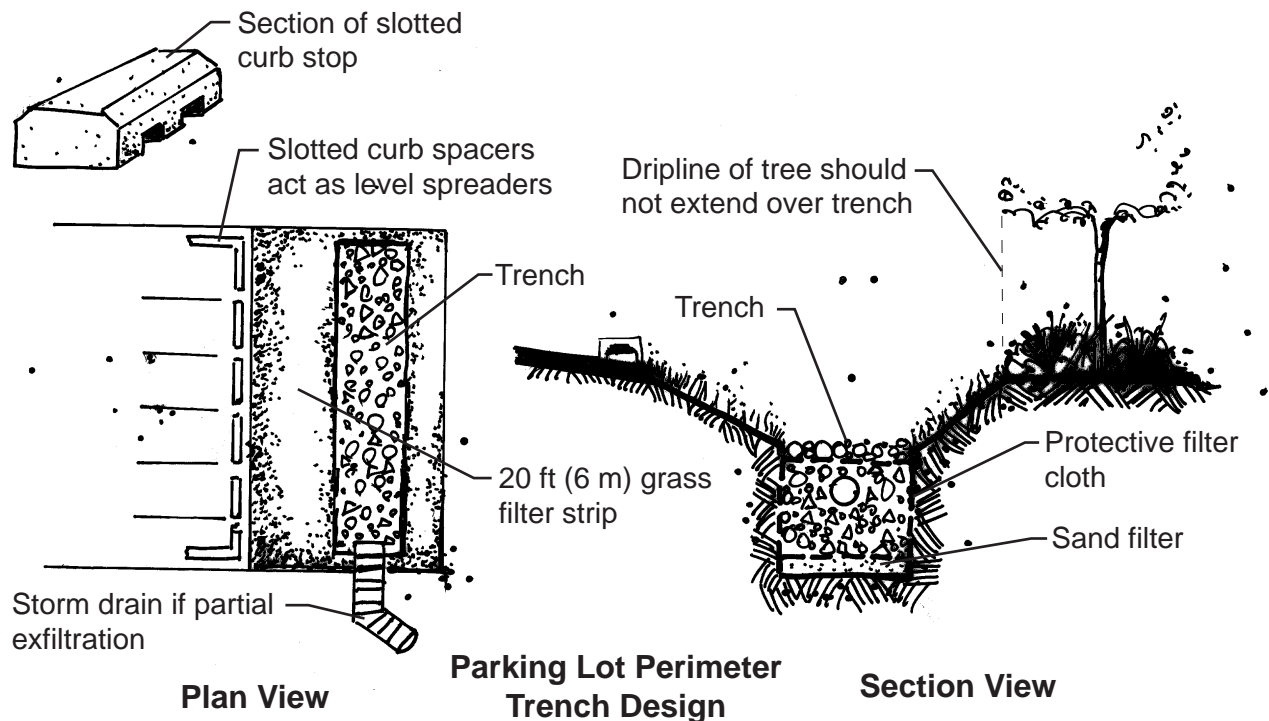
**PRIMARY USE:** Treatment of stormwater runoff from parking lots.

## PARKING LOT PERIMETER INFILTRATION TRENCH

**What is it?** This is a simple trench system which directs sheet flow through curb spacers which act as level spreaders as water passes over a grass filter strip to the filter trench.

### Purpose

These trenches can be an effective means of removing particulate and soluble pollutants. They are one of the few BMPs providing pollutant removal on smaller sites or infill developments. Trenches can be easily installed in underutilized perimeters of the site. Depending on the amount of exfiltration and storage, groundwater recharge can be benefited, as well as augmentation of low flows, and streambank erosion control. Infiltration trenches can potentially reproduce hydrologic conditions for given sites to near pre-development levels.



### Limitations

Individual trenches are primarily an on-site control, and usually not economical or practical for sites larger than 5 to 10 acres (2 to 4 ha). Permeable soils, bedrock and water tables must be well below trench bottoms.

### Materials

Perforated PVC or flexible polyethylene pipes, clean and washed gravel or stone, sand, grass, and filter fabric.

### Installation

Trenches must be kept free of sediment build-up. Therefore, careful construction to avoid soil in the filtration media is critically important, as is the installation of the grass filter strip. Strip slopes should be no greater than 5%. A berm should be installed at the far end of the trench to prevent runoff from escaping. An overflow in the trench should be installed to pass large design storms.

**Source:** Controlling Urban Runoff, Metropolitan Washington